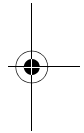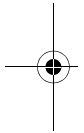Cat. No. 42-5097
OWNER'S MANUAL
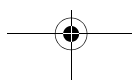
Please read before using this equipment.

CD-3800

Ultra-Slim Portable CD Player

with 40 Second Super Anti-Shock

OPTIMUS®

FEATURES

Your Optimus CD-3800 Ultra-Slim Portable CD Player uses the latest digital audio technology to deliver the clean, crisp sound of compact discs. You can use optional stereo earbuds for portable, private listening or, you can connect the CD player to your home audio or auto-sound system using an optional adapter. Its features include:

Ultra Slim Design — lets you carry your CD player without the extra bulk or weight of many other players.

Super Anti-Shock System — rapidly scans 40 seconds of data from the CD and stores it in memory for uninterrupted play with no sound skip, even when the CD player is exposed to shocks or vibration. This makes this CD player excellent for use in your vehicle.

1-Bit DAC — uses the latest in digital-to-analog conversion circuitry to accurately reproduce all sound levels with virtually no distortion.

Eight-Times Oversampling with Digital Filtering — improves the CD's sound by multiplying the standard 44.1 kHz sample rate by eight and using a digital filter to reduce or eliminate distortion.

Extended (E-) Bass System — creates a fuller bass sound.

Programmable Play — lets you program and play up to 22 tracks in any sequence you choose.

Intro Scan — scans and plays the first 10 seconds of each track, so you can find a specific track.

Repeat Play — lets you automatically repeat a single track, an entire CD, or a programmed sequence.

Random Play — lets you randomly select and play tracks from the loaded CD in the player.

Auto Power Off — automatically turns the CD player off 30 seconds after it finishes playing, or you press **STOP** (without pressing another button), to help preserve battery life.

Hold — prevents accidentally changing the CD player's control settings during play and preserves battery life by locking most controls.

Line Out Jack and Supplied Y-Cable — make it easy to connect the CD player to a sound system's low-level inputs.

Automatic Search Music System (ASMS) — lets you quickly locate and play any track on a CD.

Three Power Sources — let you power your CD player from two standard (or special rechargeable nickel-cadmium) AA batteries, your vehicle's battery using an optional DC adapter, or standard AC power using an optional AC adapter.

Eight-Hour Battery Life — you can play your CD player for up to 8 hours on just two AA batteries (with the anti-shock feature turned off).

5- or 3-Inch CD Compatible — you can play either size CD in your CD player.

CDs that can be played on this CD player have this mark on them:

COMPACT disc DIGITAL AUDIO

The CD player's advanced technology makes it simple to operate. However, be sure you read this Owner's Manual completely so you can take advantage of all its advanced features.

We recommend you record your CD player's serial number here. The number is on the CD player's bottom cabinet.

Serial Number _____

This CD player is made and tested to meet exacting safety standards. It meets FCC requirements and complies with safety performance standards of the U.S. Department of Health and Human Services.

Warnings:

• This CD player employs a laser light beam. Only a qualified service person should remove the cover or attempt to service this device, due to possible eye injury.

• The use of controls, adjustments, or procedures other than those specified herein might result in hazardous radiation exposure.

FCC INFORMATION

This equipment complies with the limits for a Class B digital device as specified in Part 15 of *FCC Rules*. These limits provide reasonable protection against radio and TV interference in a residential area. However, your equipment might cause TV or radio interference even when it is operating properly. To eliminate interference, you can try one or more of the following corrective measures:

• reorient or relocate the receiving antenna

• increase the distance between the equipment and the radio or TV

• use outlets on different electrical circuits for the equipment and the radio or TV

Consult your local Radio Shack store if the problem still exists.

You must use shielded interface cables with this equipment

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CONTENTS

POWERING THE CD PLAYER

You can power your CD player from any of these sources:

- two AA alkaline batteries (not supplied)

- two RSU 11672508 rechargeable AA Ni-Cd batteries (not supplied)

- vehicle battery power using an optional DC adapter

- standard AC power using an AC adapter (not supplied)

USING BATTERIES

You can power your CD player from two AA alkaline batteries or two rechargeable AA Ni-Cd (nickel-cadmium) batteries. Your local RadioShack store carries a wide selection of each.

You can use special Ni-Cd batteries (RSU 11672508), available through your local RadioShack store, and recharge them in the CD player. Or, you can use regular Ni-Cd batteries and charge them in a separate charger (not supplied).
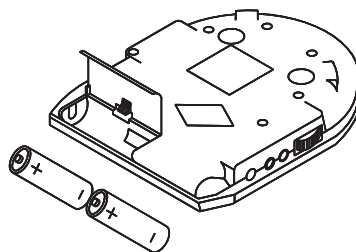
Cautions:

- Always use fresh, or freshly charged, batteries of the required size and recommended type.

- Do not mix old and new batteries, different types of batteries (standard, alkaline, or rechargeable nickel-cadmium), or rechargeable batteries of different capacities.

Note: The CD player senses whether or not the batteries you install are the rec-

ommended rechargeable batteries, and turns on the charging circuit or disconnects the batteries accordingly.

Follow these steps to install the batteries.

1. Press down on the battery compartment cover and slide it in the direction of the arrow on the cover, then lift the cover.

   Caution: The battery compartment cover is attached to the CD player. Do not try to remove it.

2. Put two AA alkaline batteries or two AA nickel-cadmium batteries in the battery compartment, as indicated by the polarity symbols (+ and –) marked outside the compartment.

   Note: Before you use the CD player with special Ni-Cd batteries, you need to charge them, either in an external battery charger or in the CD player (see "Recharging Nickel-Cadmium Batteries" on Page 6).

3. Close the battery compartment cover.

When ▬ flashes on the display, the sound distorts, or the volume weakens, replace or recharge the batteries.

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Warning: Dispose of old batteries promptly and properly. Do not burn or bury them.

Cautions: If you will not be using the CD player with battery power for more than a month, or if you plan to use only AC or DC power, remove the batteries.

Recharging Nickel-Cadmium Batteries

If you connect a DC adapter (see "Using Vehicle Battery Power" on Page 7) or an AC adapter (see "Using AC or DC Power" on Page 7) to the CD player, you can set the CD player to charge RSU 11672508 Ni-Cd batteries while they are inside the CD player's battery compartment.

Cautions:

- Use only a DC adapter or an AC adapter that meets the specifications in "Using AC or DC Power" on Page 7 to recharge the batteries in the CD player. Other adapters could damage your CD player or the batteries.

- Nickel-cadmium batteries charge more efficiently if the temperature is above 40°F (4.5°C) and below 90°F (32°C).

Note: You cannot recharge Ni-Cd batteries (other than those recommended) inside the CD player.

Follow these steps to charge RSU 11672508 Ni-Cd batteries in the CD player.

1. Connect an AC or DC adapter to your CD player

2. Insert two RSU 11672508 Ni-Cd batteries into the battery compartment. The CD player starts to charge the batteries. Initial and subsequent charging takes about 14 hours.

3. When the batteries are fully charged, disconnect the AC or DC adapter.

Important: Your CD player is capable of using nickel-cadmium batteries. At the end of the batteries' useful life, they must be recycled or disposed of properly. Contact your local, county, or state hazardous waste management authorities for information on recycling or disposal programs in your area. Some options that might be available are: municipal curbside collection, drop-off boxes at retailers such as your local RadioShack store, recycling collection centers, and mail-back programs.

USING AC OR DC POWER

You can power the CD player from a power source (such as a vehicle's cigarette-lighter socket or a standard AC outlet) using a 4.5V, 600 mA AC or DC adapter and a size B Adaptaplug® adapter (neither supplied). Both are available at your local RadioShack store.

Cautions:

⚠️ You must use a power source that supplies 4.5V DC and delivers at least 600 mA. Its center tip must be set to positive and its plug must fit the CD player's **DC IN 4.5V** jack. Using an adapter that does not meet these specifications could damage the CD player or the adapter.

• Always connect the DC adapter to the CD player before you connect it to the power source. When you finish, disconnect the adapter from the power source before you disconnect it from the CD player.

Follow these steps to connect the CD player to AC or DC power.

1. Insert the size B Adaptaplug adapter into the adapter's cord so it reads TIP + (positive).

2. Set the AC or DC adapter's voltage switch to 4.5V.

3. Insert the AC or DC adapter's barrel plug into the CD player's **DC IN 4.5V** jack.

4. Plug the other end of the adapter into an AC or DC power source.

Note: If the CD player does not operate when you use the DC adapter, unplug the cord from the cigarette-lighter socket and clean any ashes or debris from the socket.

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CONNECTIONS

You can listen to your CD player by connecting optional earbuds or optional amplified speakers to the player's **PHONES** jack, or by connecting a home audio or autosound system to the CD player's **LINE OUT** jack.

Note: If the jacks on your equipment do not match the plugs on the supplied Y-cable, check with your local RadioShack store for the proper cable adapter.

CONNECTING EARPHONES/ HEADPHONES

For private listening, connect optional stereo earbuds with a $^1/_8$-inch (3.5 mm) plug to the **PHONES** jack on the CD player.
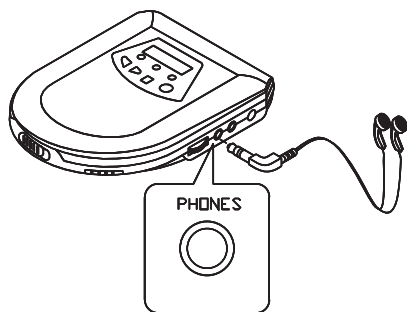
Your local RadioShack carries a wide variety of headphones and earphones you can use with your CD player.

Listening Safely

To protect your hearing, follow these guidelines when you use headphones or earphones.

- Set the volume to the lowest setting before you begin listening. After you begin listening, adjust the volume to a comfortable level.

- Do not listen at extremely high volume levels. Extended high-volume listening can lead to permanent hearing loss.

- Once you set the volume, do not increase it. Over time, your ears adapt to the volume level, so a volume level that does not cause discomfort might still damage your hearing.

Traffic Safety

Do not wear earphones or headphones while operating a motor vehicle or riding a bicycle. This can create a traffic hazard and could be illegal in some areas.

Even though some earphones and headphones let you hear some outside sounds when listening at normal volume levels, they still can present a traffic hazard.

CONNECTING AMPLIFIED SPEAKERS

You can listen to your CD player through optional amplified speakers also available at your local RadioShack store. Plug the speaker cable's $1/8$-inch (3.5–mm) plug into the CD player's **PHONES** jack.
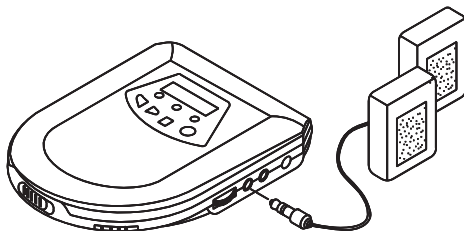

CONNECTING TO A HOME AUDIO SYSTEM

You can listen to your CD player through your home audio system's amplifier/receiver and full-size speakers. Connect the supplied Y-cable's $1/8$-inch (3.5–mm) plug to the CD player's **LINE OUT** jack. Then connect the Y-cable's phono plugs to your audio system's left and right CD, AUX, or TV audio input jacks.
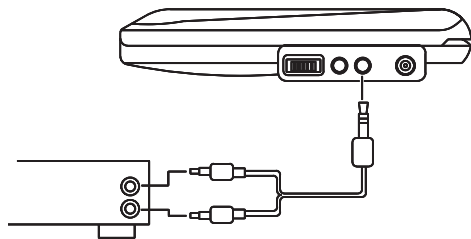

CONNECTING TO AN AUTOSOUND SYSTEM

You can listen to your CD player through your autosound system in one of the following ways:

• If your autosound system has LINE IN jacks, connect the supplied Y-cable's $1/8$-inch (3.5–mm) plug to the CD player's **LINE OUT** jack. Then connect the Y-cable's phono plugs to your autosound system's LINE IN input jacks.
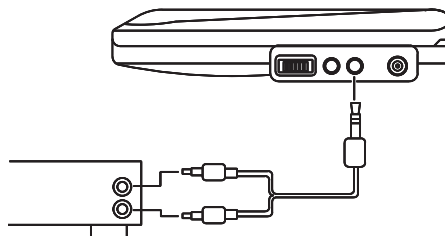
• If your autosound system has a CD input jack, connect one end of a $1/8$-inch stereo patch cable (not supplied) to the CD player's **LINE OUT** jack. Then connect the other end to your autosound system's CD INPUT jack.

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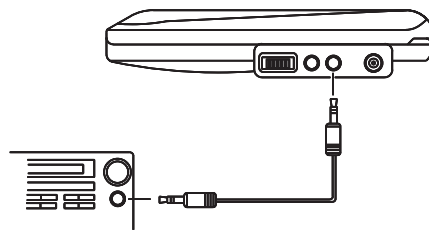
Note: You can mount your CD player in your car using an optional mounting bracket. Your local RadioShack store has a complete line of vehicle mounting brackets and hardware as well as cables, adapters and connectors, and other CD related accessories.
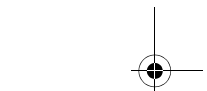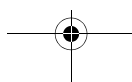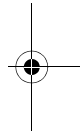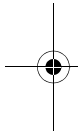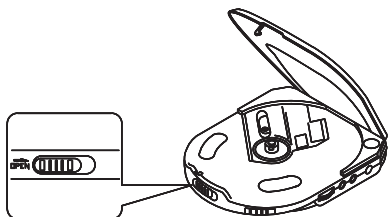
OPERATION

LOADING A CD

Caution: To help prevent dust from entering the CD player, always keep the CD compartment cover closed except when loading or unloading CDs.

1. Slide **OPEN** in the direction of the arrow and lift the CD compartment cover.

2. Carefully place a CD, label side up, over the center hub inside the CD compartment. Then gently press the CD down over the center hub.

3. Close the compartment cover.

PLAYING A CD

Warning: To protect your hearing if you are using earphones or headphones, set **VOL** to its lowest setting before you play a CD.

Press **PLAY/PAUSE**. The CD player automatically turns on and **00** appears. The total number of tracks and total elapsed playing time appear. Then Track 1 begins to play.
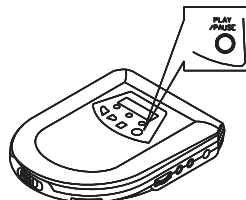
If you connected optional earbuds, headphones, or amplified speakers to the CD player's **PHONES** jack, use **VOL** on the CD player to adjust the volume.
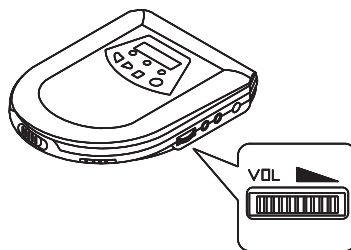
If you connected the CD player to your home audio system or autosound system using the **LINE OUT** jack, you must use the home audio or autosound system's volume control to adjust the volume.

To temporarily stop play, press **PLAY/ PAUSE**. The elapsed time flashes. To resume play, press **PLAY/PAUSE** again.

When the last track finishes playing, the CD stops and the display shows the total number of tracks and total playing time of the CD for about 30 seconds,

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then the CD player automatically turns off. To turn it off sooner, press **STOP**.

USING E-BASS

To enhance the bass sound, slide **E-BASS ON/OFF** to **ON**. To turn the bass sound off, slide **E-BASS ON/OFF** to **OFF**.

AUDIBLE SEARCH

To search forward or backward during play, hold down **SKIP** ◄ or ►. The CD plays rapidly and you hear the sound at a high speed and low volume. The current track's elapsed time appears on the display.

Release the button to resume normal play.

Note: If you hold down **SKIP** ► during the last track, audible search stops at the end of that track. If you hold down **SKIP** ◄ during the first track, audible search stops at the beginning of Track 1.
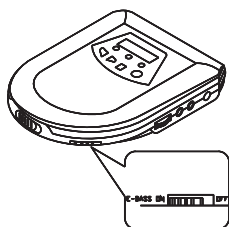
AUTOMATIC SEARCH MUSIC SYSTEM (ASMS)

You can use ASMS before or during regular or programmed play (see "Programmed Play" on Page 14) to quickly locate any track on a CD.

While the CD is stopped, repeatedly press **SKIP** ◄ or ► to move backward or forward to the desired track. Press **PLAY/PAUSE** to play the track.

During play, press **SKIP** ◄ to return to the beginning of the current track. Press **SKIP** ◄ twice to return to the beginning of the previous track. To move to the beginning of the next track, press **SKIP** ►.

SUPER ANTI-SHOCK SYSTEM

Your CD player contains special circuits to overcome sound skipping problems caused by shock or vibration. This means you can carry the CD player anywhere you go or use it in your vehicle. When you turn on the anti-shock system, the CD player continuously saves

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40 seconds of music in its memory. During a shock or vibration that would normally make a track skip or pause, the CD player plays directly from memory.

Note: Your CD player takes 90 seconds to store a full 40 seconds of music.

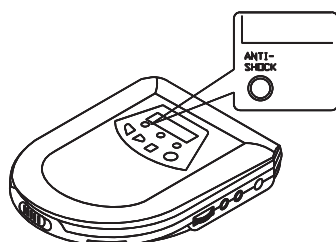To turn on the anti-shock system, press **ANTI-SHOCK**. If the CD player is playing a CD, the sound briefly stops and an icon appears under MEMORY, then the sound continues. After a few seconds, the CD player saves music in memory.

Note: The CD player consumes additional battery power when you use the anti-shock system. When you use the CD player in a stable location, turn **ANTI-SHOCK** off to save battery power.

To turn off the anti-shock system, press **ANTI-SHOCK** again. The sound briefly stops and the icon disappears.

REPEAT PLAY

You can repeat a single track on the CD, all tracks on the CD, or a programmed sequence (see "Programmed Play").

To repeat a single track, press **REPEAT/ENTER** while the desired track is playing.

⬚ flashes, and the CD player continuously replays the track.
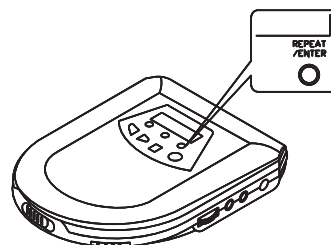
To repeat all tracks on a CD or in a programmed sequence, repeatedly press **REPEAT/ENTER**. ⬚ appears on the display.

When the CD player reaches the end of the CD or the programmed sequence, it returns to the first track and replays all the tracks, and does this continuously.

To cancel repeat play, repeatedly press **REPEAT/ENTER** until ⬚ disappears.

RANDOM PLAY

You can have the CD player play all the tracks once in random order, then automatically stop. To start random play, repeatedly press **PLAY MODE** until the random play icon appears.

Random Play Icon

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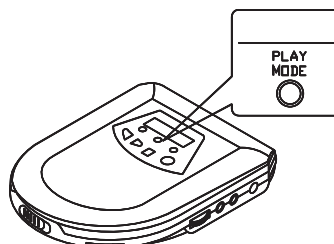
Note: If you select random play during programmed play, the CD player stops the programmed sequence and starts random play instead.

To cancel random play, repeatedly press **PLAY MODE** until random play icon disappears.

PROGRAMMED PLAY

You can program up to 22 tracks from the loaded CD to play in any order you choose, and you can program the same track to play more than once.

Follow these steps to program and play a sequence.

1. While the CD is stopped, repeatedly press **PLAY MODE** until 🅟 flashes.

2. Repeatedly press either **SKIP ◄** or ► to display the number of the first track you want to store.

3. Press **REPEAT/ENTER** to store the selected track number and advance to the next selection number.

4. Repeat Steps 2 and 3 for each track you want to store, up to 22 tracks.

   Note: If you try to store more than 22 tracks in memory, the CD player stores them over the first tracks stored.

5. To play the programmed sequence, press **PLAY MODE** until 🅟 appears, then press **PLAY/PAUSE**. The first track in the sequence plays.

While the sequence plays, you can use **SKIP ◄** or ► to move backward in the sequence.

6. After the last programmed track ends, the CD player stops. To stop the CD before the end of the sequence, press **STOP**.

To clear the programmed sequence from memory, press **PLAY MODE** until 🅟 disappears, press **STOP** twice, or open the CD compartment cover.

Note: When programmed play ends or after you stop it, the player automatically turns off after 30 seconds if you do not press a key.

INTRO SCAN

You can set the stereo to play the first 10 seconds of each track on the CD, so you can find the track you want to listen to.

To begin scanning, repeatedly press **PLAY MODE** while the CD is stopped until **INTRO** appears. Press **PLAY/PAUSE**. Intro scan starts from the first track.

Note: Intro scan will not operate while **INTRO** is flashing.

If you set the CD player to play intro scan during a track, the CD player will finish that track (**INTRO** flashes) and then intro scan begins (**INTRO** appears steady.)

You can use **SKIP** ◄ or ► to search backward or forward through the tracks.

To return to normal play, repeatedly press **PLAY MODE** until `INTRO` disappears.

LOCKING THE CONTROLS

You can protect your CD player from accidental program changes by locking all controls except **OPEN** and **E-BASS ON/OFF**.

To lock the controls, slide **HOLD** in the direction of the arrow. If you try to press any keys while the controls are locked, `Hold` appears.
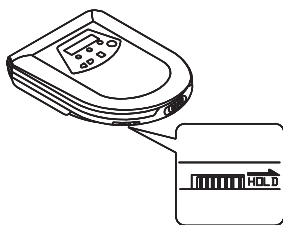
CD CARE TIPS

Even though a CD is very durable, you should handle it with care.

- Keep the CD inside the CD player or in its protective case or sleeve when you are not playing it.

- Handle a CD by its edges to avoid fingerprints that can prevent the CD player's laser beam from accurately reading the CD. Your local RadioShack store sells a suitable CD cleaner kit.

- Do not write on either side of the CD, particularly the non-label side. (Signals are read from the non-label side.)

- Keep the CD dry. A water drop can act as a lens and affect the laser beam's focus.

- Never use chemicals such as record cleaning sprays, anti-static sprays or fluids, benzene or thinner to clean CDs. These chemicals will permanently damage the plastic surface of the CD.

- If a CD skips when you try to play it, the CD might be scratched. Your local RadioShack store sells a Scratch 'n Fix kit (Cat. No. 42-127) that might stop the skip. Also see "Troubleshooting" on Page 16.

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TROUBLESHOOTING

If you have problems operating your CD player, try these suggestions. If they do not solve the problem, contact your local RadioShack store for assistance.

Problem	Possible Cause	Solution
The CD player does not work.	The CD Player is set to **HOLD**.	Slide **HOLD** in the opposite direction of the arrow.
	No power.	Be sure the batteries are not weak.
		Make sure an AC or DC adapter is properly connected.
		If you are using a DC adapter to power the CD player, check the adapter's fuse.
A CD is loaded, but the CD player does not start.	The CD is loaded upside-down.	Reload the CD, label side up.
	The CD is dirty or defective.	Clean the CD and reload it, or try a different CD. See "Specifications" on Page 18.
The CD's sound skips.	The CD is dirty or defective.	Clean the CD and reload it, or try a different CD. See "Specifications" on Page 18.
	Vibration is excessive.	Turn on the super **ANTI-SHOCK** system. See "Super Anti-Shock System" on Page 12.
		Place the CD player in a different location.
	Moisture has condensed on the pickup lens.	Wait 1 hour for the moisture to evaporate.

CARE AND MAINTENANCE

Your Optimus Ultra-Slim Portable CD Player is an example of superior design and craftsmanship. The following suggestions will help you care for your CD player so you can enjoy it for years.

Keep the CD player dry. If it gets wet, wipe it dry immediately. Liquids might contain minerals that can corrode the electronic circuits.

Use and store the CD player only in normal temperature environments. Temperature extremes can shorten the life of electronic devices, damage batteries, and distort or melt plastic parts.

Keep the CD player away from dust and dirt, which can cause premature wear of parts.

Handle the CD player gently and carefully. Dropping it can damage circuit boards and cases and can cause the CD player to work improperly.

Use only fresh batteries of the required size and recommended type. Batteries can leak chemicals that damage your CD player's electronic parts.

Wipe the CD player with a damp cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the CD player.

Modifying or tampering with the CD player's internal components can cause a malfunction and might invalidate its warranty and void your FCC authorization to operate it. If your CD player is not performing as it should, take it to your local RadioShack store for assistance.

SPECIFICATIONS

AUDIO

Frequency Response .... 20–20,000 Hz (±3 dB)
Dynamic Range .... 80 dB
Signal-to-Noise Ratio .... 80 dB
Harmonic Distortion at 1 kHz 0.15%
Separation at 1 kHz .... 55 dB
Wow/Flutter .... Not Measurable
Earphones Output (10% THD at 32 Ohm) .... 15 mW + 15 mW
Line Output .... 0.6 V

SIGNAL FORMAT

Sampling Frequency .... 44.1 kHz
Oversampling .... 8 Times
Quantization Number .... 1-Bit Linear/Channel
Transmission Bit Rate .... 4.3218 Mb/Second
Signal-Processing Rate .... 352.8 kHz

PICK-UP

Tracking System .... 1-Beam Tracking Servo Type
Object Lens Drive System .... 2-Dimensional Parallel Drive
Optical Source .... Semiconductor Laser
Wavelength .... 780 nm

GENERAL

Power Requirements:
   DC 3V; Two AA Alkaline or Rechargeable Ni-CD Batteries (not supplied)
                                        or 4.5V 600 mA DC Adapter (not supplied)
                                        or 4.5V 600 mA AC Adapter (not supplied)

Power Consumption .... 8 W
Battery Life (EIAJ Method) .... 8 Hours (with Anti-Shock off)
Dimensions (HWD) .... $1 \times 5^{1}/_{10} \times 5^{7}/_{10}$ Inches (25.2 $\times$ 131 $\times$ 144 mm)
Weight (without batteries) .... 9.5 oz (270 g)
Included Accessory .... Y-Cable

Specifications are typical; individual units might vary. Specifications are subject to
change and improvement without notice.

NOTES
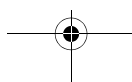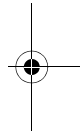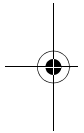
Limited One-Year Warranty

This product is warranted by RadioShack against manufacturing defects in material and workmanship under normal use for one (1) year from the date of purchase from RadioShack company-owned stores and authorized RadioShack franchisees and dealers. EXCEPT AS PROVIDED HEREIN, RadioShack MAKES NO EXPRESS WARRANTIES AND ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THE WRITTEN LIMITED WARRANTIES CONTAINED HEREIN. EXCEPT AS PROVIDED HEREIN, RadioShack SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO CUSTOMER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS OR DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY USE OR PERFORMANCE OF THE PRODUCT OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, INCLUDING, BUT NOT LIMITED TO, ANY DAMAGES RESULTING FROM INCONVENIENCE, LOSS OF TIME, DATA, PROPERTY, REVENUE, OR PROFIT OR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, EVEN IF RadioShack HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow the limitations on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

In the event of a product defect during the warranty period, take the product and the RadioShack sales receipt as proof of purchase date to any RadioShack store. RadioShack will, at its option, unless otherwise provided by law: (a) correct the defect by product repair without charge for parts and labor; (b) replace the product with one of the same or similar design; or (c) refund the purchase price. All replaced parts and products, and products on which a refund is made, become the property of RadioShack. New or reconditioned parts and products may be used in the performance of warranty service. Repaired or replaced parts and products are warranted for the remainder of the original warranty period. You will be charged for repair or replacement of the product made after the expiration of the warranty period.

This warranty does not cover: (a) damage or failure caused by or attributable to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation or maintenance, alteration, lightning or other incidence of excess voltage or current; (b) any repairs other than those provided by a RadioShack Authorized Service Facility; (c) consumables such as fuses or batteries; (d) cosmetic damage; (e) transportation, shipping or insurance costs; or (f) costs of product removal, installation, set-up service adjustment or reinstallation.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

RadioShack Customer Relations, 200 Taylor Street, 6th Floor, Fort Worth, TX 76102

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